

Linzer biol. Beitr.	43/2	1345-1350	19.12.2011
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## Two new species of the genus *Philonthus* from the Afrotropical region (Coleoptera: Staphylinidae: Staphylininae: Philonthina)

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**A b s t r a c t :** *Philonthus merops* nov.sp. (Ghana, Sierra Leone) and *Philonthus graphiurus* nov.sp. (Central Republic of Africa) are described and distinguished from the similar *P. dionysiae* LEVASSEUR 1962. The external and male genitalic characters are illustrated for both species, their distribution is mapped.

**K e y w o r d s :** Coleoptera, Staphylinidae, Philonthina, *Philonthus*, Afrotropical region, taxonomy, new species.

### Introduction

**D i a g n o s i s .** These two new species belong to the *P. aemulus* species group characterized in HROMÁDKA (2009) as follows: moderately large to large species 10.3-15.7 mm long, with head black or blackbrown, pronotum orange-red to brown-red, elytra from red-brown to brown-yellow, mostly with dense and simple punctation, antennomeres normal or serrate, eyes relatively large and sometimes a little convex, dorsal rows with variable numbers of punctures from two to nine, sublateral row with one to four punctures, first three visible abdominal tergites with two basal lines, elevated area between lines punctate or impunctate.

### Material, methods, and measurements

The following acronyms are used to refer to the collections mentioned:

HNMH.....Hungarian Natural History Museum, Budapest, Hungary (György Makranczy)

NMPC.....National Museum, Praha, Czech Republic (Jiří Hájek)

cHro .....Lubomír Hromádka, private collection, Praha (Czech Republic)

Separate labels are dividend in the text by a double slash (/). All measurements were taken from the beetles with their abdomen stretched. Ratios mentioned in the descriptions can be converted to lengths as 20 units = 1 mm.

## Species descriptions

### *Philonthus merops* nov.sp. (Figs 1-4, Map 1)

**Type material:** Holotype ♂: "GHANA: Ashanti region Kwadaso 320 m, N6 42-W 1 39, Nr. 200, black light, 6.ii.1968, // *Philonthus merops* sp.nov. Hromádka det., 2011 (HNMH)". Paratypes: 4♂♂, 3♀♀: same label data as holotype (HNMH, cHro), 1♀, Northern region, Banda-Nkwanta 150m, N 8 22 – W 2 08, Nr. 47, light trap, 26.-31.vii.1965, Dr. S. Endrödy-Younga (HNMH), 1♂, Ashanti region, Kumasi, Nhiasu 330m, N 6 43 – W 1 36, Nr. 290, light trap, 10.xii.1967, Dr. S. Endrödy-Younga (HNMH), 1♂, Northern region, Tamale, No. 51, Lichtfalle/Quarz/, 27.viii.1970, leg. Dr. S. Endrödy, (cHro), 1♂, Northern region, Tamale, No. 51, Lichtfalle/Quarz/, 26.viii.1970, leg. Dr. S. Endrödi (cHro), Sierra Leone, 1♂, Western Ares, Base Picket Hill, 9.i.1997, W. Rossi (cHro).

**Description:** Body length 11.5-11.7 mm. Coloration: head black, pronotum, scutellum, elytra and abdomen orange-yellow, maxillary and labial palpi, antennomeres 1-2 and legs yellow-brown, mandibles dark brown, abdomen slightly bluish-yellow iridescent.

Head wider than long (ratio 45: 34), very slightly narrowed posteriorly. Posterior angles markedly rounded, bearing one long and several short black bristles. Four punctures between eyes arranged in straight line, distance between medial and lateral punctures four times as large as distance between medial and lateral puncture. Eyes slightly convex, longer than temples (ratio 12: 10), posterior margin with three coarse punctures. Temporal area with many varying large punctures. Surface with microsculpture consisting of transverse waves and with many microscopic dots.

Antennae long and stout, reaching posterior margin of pronotum when reclined. Antennomeres 1-4 and 11 longer than wide, antennomeres 5-10 wider than long, slightly serrate. Antennomere 1 longer than antennomere 11, antennomere 2 slightly shorter than antennomere 3.

Pronotum wider than long (ratio 50: 42), parallel-sided, anterior angles conspicuously deflexed, obtusely rectangularly rounded, bearing several bristles, posterior angles markedly rounded. Each dorsal row with four fine approximately equidistant punctures, each sublateral row with two punctures, puncture two distinctly shifted to the lateral margin. Sides bearing several varying long bristles. Surface with very fine microsculpture consisting of transverse waves.

Scutellum very densely and finely punctured, diameter of punctures slightly larger than eye-facets, separated by one puncture diameter or slightly smaller. Setation brown-yellow.

Elytra wider than long (ratio 55: 50), parallel-sided, punctuation very fine and dense, diameter of punctures as large as that on scutellum, transverse interstices between punctures as large as diameter of one puncture. Surface without microsculpture; setation yellow-brown.

Legs: Metatibia shorter than metatarsus (ratio 32: 30), metatarsomere 1 longer than metatarsomere 5, as long as metatarsomeres 2-3 combined.

Abdomen wide, parallel-sided. First three visible tergites with two basal lines, elevated area between lines finely and densely punctate. Punctuation of all tergites finer and much denser than on elytra. Surface without microsculpture; setation similar to that on elytra.

Male: Protarsomeres 1-3 very strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 smaller than preceding ones, heart-shaped. Sternite IX (Fig. 4), aedeagus (Figs 1-3).

Female: Protarsomeres 1-3 less dilated than in male, protarsomere 4 small, all protarsomeres covered with modified pale setae ventrally.

**Comparative notes:** *Philonthus merops* nov.sp. is similar to *P. graphiurus* nov.sp., but differs in having narrower head, slightly longer elytra. From *P. dionysiae* LEVASSEUR 1962 it can be distinguished by the smaller size and narrower head. And from both these species, *P. merops* differs in the shape of the aedeagus.

**Etymology:** The name of this species, a noun in apposition, is the Latin generic name of the African swallow-tailed bee-eater *Merops hirundineus* A.H. LIECHTENSTEIN, 1793.

**Distribution:** Ghana, Sierra Leone.

### ***Philonthus graphiurus* nov. sp. (Figs 5-8, Map 1)**

**Type material:** Holotype ♂: "République Centrafricaine, Bozo, lumière, 21.v.1981, leg., N. Degallier // *Philonthus graphiurus* sp.nov. Hromádka, det. 2011" (NMPC).

**Description:** Body length 12.5 mm. Coloration: head black, pronotum and abdomen brown-orange, posterior margin of all tergites narrowly paler, scutellum and elytra orange-brown, maxillary and labial palpi and antennomeres 1-2 yellow-brown, remaining antennomeres and mandibles brown-yellow, legs yellow-brown.

Head wider than long (ratio 48: 35), parallel-sided. Posterior angles obtusely rounded, bearing several short black bristles. Four punctures between eyes arranged in straight line, distance between medial punctures five times as large as distance between medial and lateral puncture. Eyes flat, longer than temples (ratio 15: 13), whole temporal area with many varying large punctures. Surface with very fine microsculpture, consisting of transverse waves.

Left antenna only with 8 antennomeres, right antenna only with 7 antennomeres, rest of antennae of the holotype are missing. Antennomeres 1-5 longer than wide, antennomeres 6-8 as long as wide, antennomere 2 slightly shorter than antennomere 3.

Pronotum highly convex, wider than long (ratio 54: 48), anterior angles conspicuously deflexed, vaguely rectangularly rounded, posterior angles markedly rounded. Very slightly narrowed anteriorly. Each dorsal row with four fine punctures, punctures 2-4 equidistant, distance between punctures 1-2 smaller than distance between previous punctures. Each sublateral row with 2 very fine punctures, puncture 2 distinctly shifted to the lateral margin. Surface with microsculpture similar to that on elytra.

Scutellum very finely punctured, diameter of punctures as large as eye-facets, separated by one puncture diameter or smaller here and there.

Elytra wider than long (ratio 60: 57), parallel-sided. Punctuation very fine and dense. Diameter of punctures slightly larger than on scutellum, separated by one puncture diameter, or slightly smaller. Surface without microsculpture; setation brown-yellow.

Legs. Metatibia shorter than metatarsus (ratio 30: 36), metatarsomere 1 longer than metatarsomere 5, as long as metatarsomeres 2-3 combined.

Abdomen wide, parallel-sided, first three visible tergites with 2 basal lines, elevated area

between lines impunctate. Punctuation at base of all tergites finer than on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1-3 distinctly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 8), aedeagus (Figs 5-7).

Female. Unknown.

**Comparative notes:** *Philonthus graphiurus* nov.sp. may be distinguished from the similar *P. dionysiae* LEVASSEUR 1962 by the smaller size and shorter elytra.

**Etymology:** The name of this species, a noun in apposition, is the Latin generic name of the African Huet's dormouse *Graphiurus hueti* ROCHENBRUNS 1893.

**Distribution:** Central Republic of Africa.

### ***Philonthus dionysiae* LEVASSEUR 1962 (Figs 9-11)**

**Type material:** Holotype ♂: "Rég. Kolwezi, Katanga, coll. Levasseur, Lumiere, Dr. V. Allard Réc" (MNHN).

### **Acknowledgements**

I wish to express my thanks to Thierry Deuve and Taghavian Azedah (Muséum national d'Histoire naturelle, Paris, France) for the loan of the holotype from Levasseur collection, György Makranczy (Hungarian Natural History Museum, Budapest, Hungary) for the loan of African material for identification, Alexey Solodovnikov (Zoological Museum University of Copenhagen, Copenhagen, Denmark) for valuable comments on the manuscript.

### **Zusammenfassung**

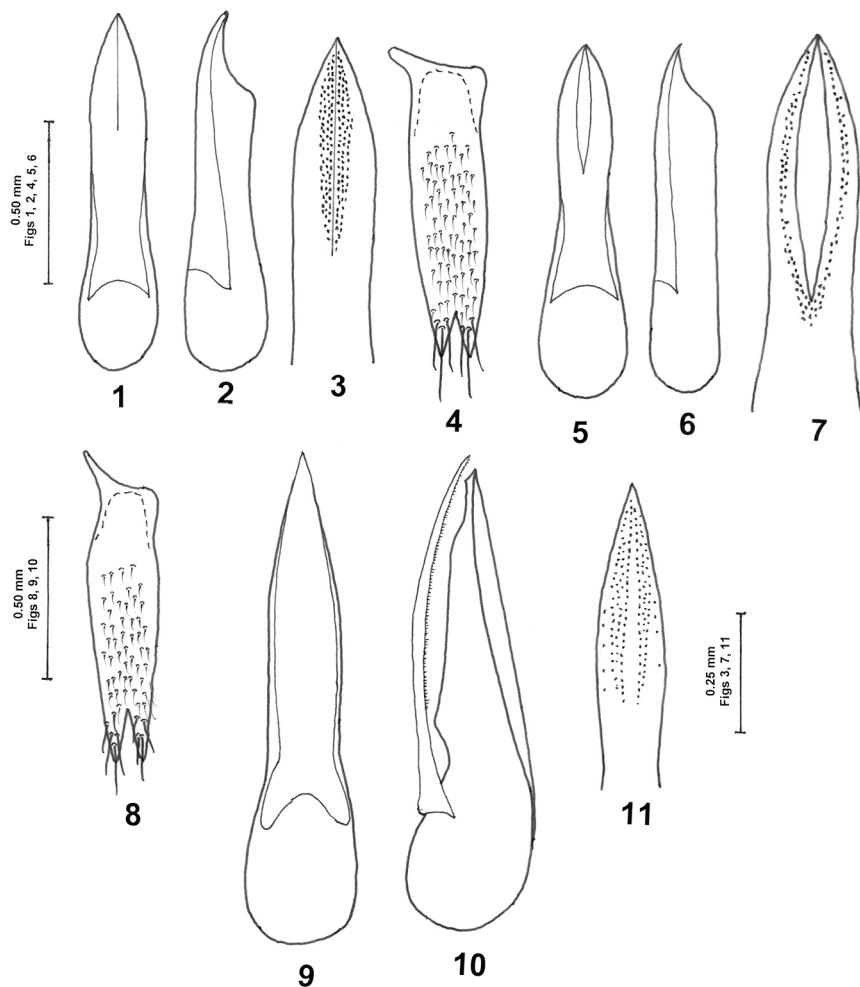
*Philonthus merops* (Ghana and Sierra Leone) nov.sp. and *Philonthus graphiurus* (Central Republic of Africa) nov.sp. werden beschrieben und von der ähnlichen *P. dionysiae* LEVASSEUR 1962 unterschieden. Die äußeren sowie die männlichen Geschlechtsmerkmale der drei Arten werden abgebildet.

### **References**

- HROMÁDKA L. (2009): Revision of Afrotropical species of the *Philonthus aemulus* species group (Coleoptera: Staphylinidae: Philonthina). — Acta Societatis Zoologicae Bohemicae **73**: 27-51.
- LEVASSEUR L. (1962): Contribution à la connaissance Coléoptères Staphylinides de l'Afrique Nore (Ire note). — Bulletin de la Société Entomologique de France **66** (1961): 233-243.

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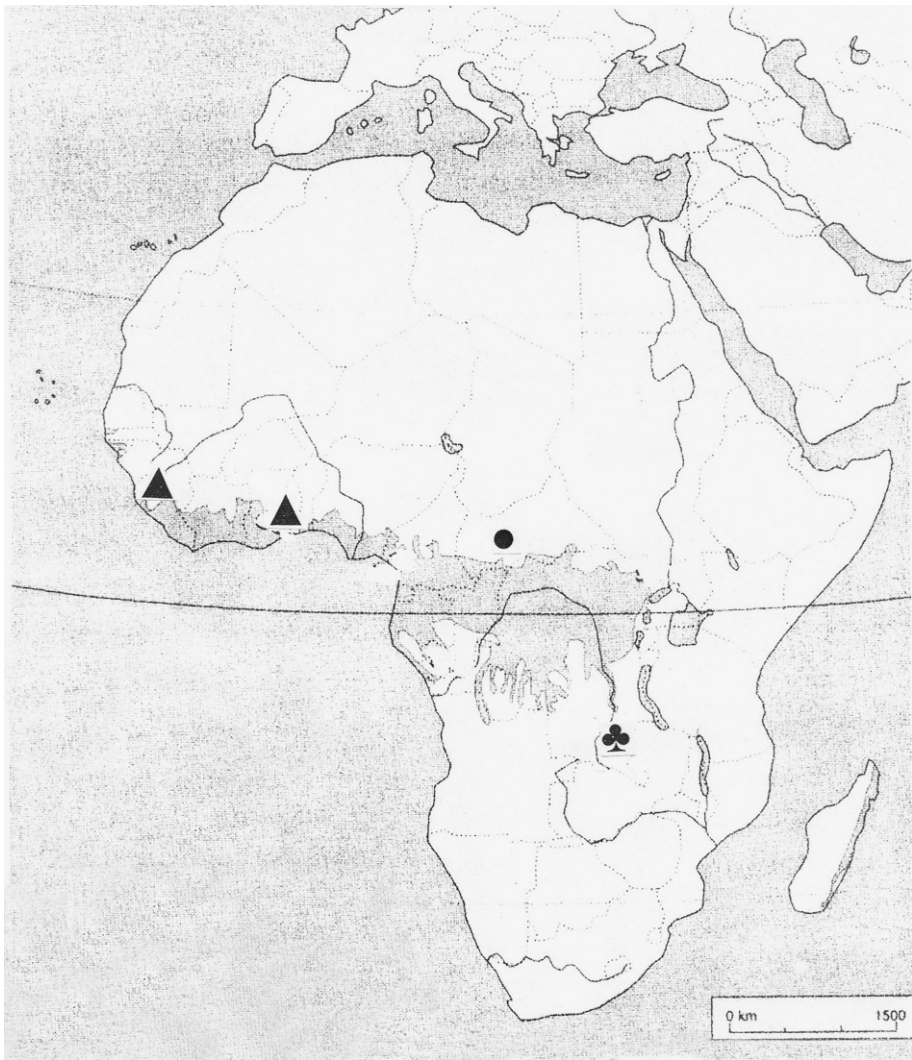
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**Figs 1-4:** *Philonthus merops* nov.sp.: (1) aedeagus, ventral view, (2) aedeagus, lateral view, (3) apex of paramere with sensory peg setae, ventral view, (4) male sternite IX, ventral view.

**Figs 5-8:** *Philonthus graphiurus* nov.sp. (5) aedeagus, ventral view, (6) aedeagus, lateral view, (7) apex of paramere with sensory peg setae, ventral view, (8) male sternite IX, ventral view.

**Figs 9-11:** *Philonthus dionysiae* LEVASSEUR 1962 (9) aedeagus, ventral view, (10) aedeagus, lateral view, (11) apex of paramere with sensory peg setae, ventral view.



**Map 1:** Distributions of *Philonthus dionysiae* LEVASSEUR ♣, *P. graphiurus* nov.sp. ▲, *P. merops* nov.sp. ●.